## 2<sup>nd</sup> Quarterly Report – Public Page

Date of Report: November 26, 2008

Contract Number: DTPH56-08-T-000010

Prepared for: U.S. Department of Transportation (DOT) Pipeline and Hazardous

Materials Safety Administration (PHMSA)

Project Title: Direct strain measurements and failure pressure prediction in mechanically

damaged and strained pipes

Prepared by: Luna Innovations Incorporated

Contact Information: Paul Panetta, panettap@lunainnovations.com 757-224-5724

For quarterly period ending: November 30, 2008

**Public Page Section-** This section contains information on the technical status of the Project and the milestones completed during the quarter. Information will be information that PHMSA may release to the public in whole or in part at any time. The information must not contain proprietary data or confidential business information. The Team Project Manager must provide a point of contact for coordination, preparation, and distribution of any press releases.

## General Information required on all Public Quarterly Reports

## **Results and Conclusions**

In the last quarter, subcontracts were finalized and the contract with the main cost sharing partner PRCI was finalized. Additionally, the modeling tasks 3 and 4 have begun and a second "kinked" piped was delivered to our lab from El Paso Gas.



Figure 1. Kinked pipe from El Paso Gas in the Luna Hampton Facility

## Plans for Future Activity:

We will receive a second hand held ultrasonic thickness gage and continue to assess both handheld ultrasonic systems to determine their sensitivity to help guide future electronic development. The second hand held thickness gage which uses EMAT technology has been delayed due to vendor availability. We should have the second hand held thickness gage for evaluation in January. Additionally we will have the EMAT pulser/receiver system in house and will complete the year one task one lab measurements before conducting field work in California. We will continue work on the burst pressure modeling and coordinating with PRCI member companies. The team project deliverables are:

- 8. Conduct field work and provide assessment of measurement capabilities and electronic design
- 9. Submit third quarterly report